

NEW SPECIES OF THE GENUS CERION.

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Mr. C. J. Maynard has lately made known certain characters of the internal teeth or lamellæ of the species of the genus *Cerion* found by cutting the shell open. By this means, many species considerably alike externally are found to be well distinguished when their interiors are examined. Mr. E. G. Vanatta having engaged to make the necessary sections, a considerable portion of the *Cerions* of the Academy's collection has been thus reviewed, and various new species brought to light, some of which may be briefly diagnosed as follows, further information and figures being reserved for a future communication:—

Cerion (*Paracerion*) *tridentatum* Pilsbry and Vanatta.

Shell similar externally to *C. incanum*, but aperture long, ovate, much higher than wide; cone of spire longer, several whorls following the nepionic ones densely striate. Parietal lamina small, short, central, with a smaller accessory denticle to the left of and beyond its inner end, and another lamina slightly to the right and deeper within. Alt. 25-27½; diam. 9-10 mm. Cuba, R. Swift.

The section *Paracerion* P. and V. is proposed for forms having the tooth arrangement described above.

Cerion (*Paracerion*) *basistriatum* P. and V.

Shell allied to *C. striatellum* in form and tooth arrangement, but lacking riblets on the intermediate whorls, basal whorl costulate; substance much thinner. Alt. 16½-18; diam. 8-9 mm. Cabo Cruz, Cuba.

Cerion (*Maynardia*) *felis* P. and V.

Shell short, stout, cylindrical, with short but straight and rather acute cone; strongly costate throughout (except nepionic whorls), the ribs curved, 16 on penult. and on next earlier whorls, widely spaced. *Entire surface closely sculptured with uncrenely spaced, deep, incised spiral striae.* Whorls 10, slightly convex. Aperture ovate-cordate, nearly as wide as high, over a third the shell's length. Lip

reflexed, thin; parietal lamina strong, short; axial lamina inconspicuous in front. Alt. 28; diam. 12 mm. (Cat Island, Bahamas.

This species and the next are peculiarly unlike all others known in being densely, conspicuously spirally striated.

Cerion (*Maynardia*) *Johnsoni* P. and V.

Shell turreted, elongate, *the last whorl widest, the others forming a tapering spire*, the earlier whorls of the form seen in a young *Eucaulodium*. *Surface densely spirally striate*, and bearing very stout, distant ribs; 11 on penult., one or two fewer on earlier whorls. Whorls $11\frac{1}{2}$, *very convex*. Aperture about one-third the alt., oval-cordate; parietal lamina small. Color cream-white. Alt. 32; diam. 11 mm. Locality unknown; one specimen from coll. C. W. Johnson.

This is really the most remarkable form of *Cerion* yet discovered, allied to *C. felix* in sculpture, but in the tapering contour wholly unlike anything known hitherto in the genus, with the exception of *Pupa scalarina* Gundl., which is much smaller, with less attenuated earlier whorls.

Cerion (*Maynardia*) *columna* P. and V.

Shell thick, strong, cylindrical or column-shaped, the latter 4-5 whorls of equal diameter, those preceding forming a cone of one-fourth the shell's length; bluish-white, flesh-tinged on cone, some whorls of which are finely, closely striate; the striæ then either disappear, leaving the median whorls smooth, or become coarse, wide-spaced, irregular costæ on median whorls, stronger on last whorl. Whorls 13, hardly convex. Aperture small, less than one-third the alt., long-ovate, gothic-angular above; interior deep purple-brown, often becoming red-brown toward the white lip, which is everywhere revolutely reflexed, but not thickened. Parietal tooth strong and (for a *Maynardia*) long. Axial lamina moderate. Alt. $46\frac{1}{2}$; diam. $12\frac{1}{2}$ mm. Inagua.

Differs from the closely allied *C. infanda* in the smaller and colored aperture, less compressed body-whorl, etc.; from *C. regina* it differs in the more elongate form, colored mouth and less excavated umbilical tract; from *C. regium* in the more slender contour, etc. It resembles in shape, *Pupa cretacea* Pfr.; but that species is far more obtuse than any of the dozen specimens of this before us. A variety which may be called v. *valida* is smaller, strongly and subregularly costate throughout. Inagua. Alt. 34; diam. $10\frac{1}{2}$ mm.

Cerion (Maynardia) regina P. and V.

Shell like *C. regium* Bens. in form, color, and the expanded, excavated umbilical area; lip narrower; ribless except on the last whorl, which has few irregularly spaced ribs, or in some specimens uneven, sparse ribs are found throughout the cylindrical portion. Parietal tooth short. Alt. 30-33½; diam. 12 mm. Turk's Island (Swift, Gabb).

This species has affinities with *C. columna* of Inagua, *C. regium* of Castle Island, *C. lentiginosum* and *C. album* of Rum Cay. The first is more elongated and pillar-like, with very dark mouth; the second is stouter, heavier, with far wider, thicker lip—in fact, a lip of quite Ethiopian characteristics; and the two forms from Rum Cay are distinguished from all the preceding by the close, even microscopic costulation of their earlier whorls.

C. regina percostatum P. and V.

Form of shell and mouth as in *C. regina*; but whole surface except nepionic apex, regularly ribbed, as in *Strophia alba* Mayn., except that the ribs on cylindrical portion are wider spaced. White, much mottled and clouded with brown. Holds the same relation to *C. regina* that *album* holds toward *lentiginosum*. Alt. 35½; diam. 13 mm.; often smaller in the same proportions or comparatively wider. Mouth longer than in *C. album* Mayn. Turk's Island.

Cerion regina comes P. and V.

Shell with the form, size and sculpture of *C. regina*, but coloring of *C. lentiginosum* Mayn.; heavily streaked and blotched with chestnut brown, on the cone finely speckled and zigzagged. Turk's Island. (Swift, Gabb, *et al.*)

Cerion regina Swiftii P. and V.

Shell with the elongated form and large, excavated umbilical tract of *C. regina*, but smaller, thinner, *distinctly tapering* from the body-whorl upward; parietal callus very heavy in adults, parietal lamina low, deep-seated. Color varying from white to chestnut, streaked and speckled with white. Alt. 26; diam. 10 mm. Turk's Island. (C. Blume, in Robert Swift collection, A. N. S.)

Cerion regina eucosmium P. and V.

Shell with the form and size of *regina*, but smooth, glossy, ribless, or with a few irregular ribs on body-whorl; livid, pinkish-brown, streaked and speckled with white.

Cerion regina brevispira P. and V.

Shell short, pupiform, compact; lower two whorls of equal diameter, those above tapering to form a short cone. Whorls 8-9, all but the last one smooth, the last more or less ribbed; umbilical chink deep, the area below it excavated. Aperture much exceeding one-third the length of shell, ovate, purple within; peristome narrowly reflexed, not thickened, white; parietal callus imperceptible; parietal lamina small, rather short, deep-seated. Axial lamina small. White, boldly streaked and blotched with rich brown. Alt. 22, diam. 10 mm. or smaller. Apert., alt. 9.5; width 8.3 mm. Turk's Island. (W. M. Gabb.)

This form looks very distinct from *C. regina*, and we have no intermediate specimens; but it occurs on the same small island, and may prove to be only a sub-species of that form.

Cerion (Maynardia) maritimum var. *sublævigatum* (Pfr.) P. and V.

Similar to *maritima*, but lacking costulae. Matanzas, etc., Cuba. (*Strophia maritima* Maynard, Monogr. p. 127, seems to be this, rather than the typical *maritima*.)

Cerion (Maynardia) abacoensis P. and V.

Shell like *Cerion album* Maynard in form, sculpture and color, or rather shorter; differing in the more closed, shallower, far shorter umbilical rimation and very much smaller umbilical area behind columellar lip, and in the thicker lip. Alt. 32; diam. 12½ mm.; alt. 27½; diam. 13 mm. Abaco I. (Bland.)

Cerion (Maynardia) incanoides P. and V.

Shell resembling *C. incanum* in general aspect. Very thin; cylindrical, the lower three whorls of equal diameter, those above forming a convex, obtuse cone. Surface nearly smooth, as in *S. incana*; white or fleshy-white, the two nepionic whorls corneous brown, the following whorls of cone finely variegated with zigzag brown marking and speckling. Whorls 10, almost flat. Aperture ovate-truncate, brown inside; parietal lamina low and rather short; axial lamina sharp, strong within last whorl, but not over a whorl long; peristome narrowly reflexed, white, thin; parietal callus rather thin; umbilical rimation deep, sometimes perforate, the area below it broad, excavated, flaring. Alt. 30; diam. 11 mm.; alt. of apert. 11; diam. 9 mm. Turk's Island.

This species belongs clearly to the group of *C. regina*, *lentiginosum*, etc., but it is a very thin shell, smooth like *incana*, with which it has probably been confused in collections.

Cerion (*Maynardia*) *Maynardi* P. and V.

Shell large, strong, cylindrical, white or fleshy in the intervals between strong, slightly curved ribs, separated by three times their width on the cylindrical portion, which consists of 3 to 4 whorls; those above forming a short cone on which the ribs are much closer. Whorls $11\frac{1}{2}$, flat, the last ascending, becoming attenuated downward, but with well rounded base, upon which the ribs are obsolete, but replaced by fine costulae. Umbilical rimation very deep, the area below it rather wide, bounded by a spiral groove well within the basal margin of umbilical tract. Aperture ovate-truncate, brown within; parietal lamina very strong, thick but short; axial lamina small, one whorl long. Peristome stout, broadly reflexed, its face convexly thickened but not "duplicate;" broadly vaulted over the umbilical region; parietal callus varying from thin to heavy. Alt. 35; diam. 15 mm.; apert. alt. 14; width 12 mm. Some specimens fall under, some exceed these dimensions. Abaco, Bahamas. (Robert Swift.) Larger and coarser than *C. abacoensis*, and with far deeper umbilical rimation and distant ribs.

Cerion (*Maynardia*) *yumaensis* P. and V.

Shell cylindrical, the lower three whorls of equal diameter, those above tapering rapidly to form a short cone; white, mottled with fleshy-corneous above, or having this color appear in sparse streaks, or in most or all the intervals between the opaque white riblets throughout the shell. Surface evenly, regularly and closely ribbed, the ribs separated by intervals slightly greater than their own width, about 29 on penult. whorl. Whorls $9\frac{1}{2}$, the earlier two corneous, first one smooth, next very minutely radially striate. Last whorl rounded below. Umbilical chink much compressed, the tract below it semi-lunar, defined by a groove. Aperture truncate-ovate, brown within; parietal lamina small, short. Columella truncated obliquely; lip expanded, not thickened; the parietal callus light. Alt. $24\frac{1}{2}$; diam. $9\frac{1}{2}$ mm. Yuma River, Hayti (Henry Prime); San Domingo (Gabb; Sallé). While superficially like *C. striatellum*, the different armature of the parietal wall at once distinguishes this species. The parietal lamina is much reduced, almost absent in some specimens.